

Contact Person	<a href="#">Sarah Morris-Benavides</a>	Revision	4.0
Manual 10200.002 Section 6		Effective Date	06/01/2016
Environmental Protection Program		Review Date	06/01/2019

## SECTION 6: ENVIRONMENTAL PROTECTION PROGRAM

This program encompasses the overriding environmental protection principles that apply at Ames Laboratory and refers to specific policies and procedures for protecting environmental media the Laboratory has the potential to impact. It cites appropriate regulations and rules identified in Ames Laboratory's contract.

### 6.1 Approval Record

- Reviewed by: Document Control Coordinator (Hillary Burns)
- Approved by: Manager ESH&A (Sean Whalen)
- Approved by: Deputy Director (Tom Lograsso)

The official approval record for this document is maintained in the Training and Documents Office, 105 TASF.

### 6.2 Revision/Review Information

The revision description for this document is available from and maintained by the author.

### 6.3 Environmental Management System

The purpose of this subsection is to briefly describe the Laboratory's Environmental Management System (EMS) which is detailed in the [Environmental Management System Description](#) (Plan 10200.040). The EMS applies to all Ames Laboratory employees and their related activities.

#### 6.3.1 Background Information

Federal facilities are required by Executive Order 13693, *Planning for Federal Sustainability in the Next Decade* to have an Environmental Management System (EMS). The Ames Laboratory's EMS is fully integrated into its Integrated Safety Management System (ISMS). The Laboratory's self-declaration has been verified and approved by the DOE Ames Site Office. DOE Order 436.1 sets forth EMS requirements that apply to the management and operation, facility management, or other contracts under which the Laboratory manages the Government's facilities.

#### 6.3.2 Program Information

An EMS is a continual cycle of planning, implementing, reviewing and improving the actions that an organization takes to meet its environmental obligations. Ames Laboratory Environment, Safety, Health and Assurance (ESH&A) maintains the documentation for the EMS program. The Senior Environmental Specialist chairs the EMS Steering Committee. The EMS Steering Committee is representative of the operations and scientific personnel at the Laboratory. The Environmental Management System Description serves as the plan for the EMS and its implementation at the Laboratory.



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Contact Person	<a href="#">Sarah Morris-Benavides</a>	Revision	4.0
Manual 10200.002 Section 6		Effective Date	06/01/2016
Environmental Protection Program		Review Date	06/01/2019

### 6.3.3 Roles and Responsibilities

#### **Ames Laboratory Director** shall:

- Determine the annual objectives and targets for the Laboratory based on the recommendations of the EMS Steering Committee.
- Allocate the necessary funding to achieve those objectives and targets.

#### **Division, Institute and Program Directors and Department Managers** shall:

- Assess potential impacts to the environment, cultural and historic sites when planning work.
- Assess and consider utilizing energy efficient (savings) practices when developing research and other laboratory activities. Consult with Facilities and Engineering Services, Information Services and ESH&A as necessary.
- Purchase materials and products that meet requirements for recycled content and/or energy efficiency when feasible. Consult with Purchasing and Property Services as necessary.
- Allow for sufficient funding for environmental budget concerns.
- Notify ESH&A of new or significantly modified activities under supervision.

#### **Group Leaders** shall:

- Assess potential environmental impacts when planning work.
- Identify and take measures to eliminate or minimize the environmental impacts of their work activities
- Assess and consider utilizing energy efficient (savings) practices when developing research and other laboratory activities. Consult with Facilities and Engineering Services, Information Services and ESH&A as necessary.
- Purchase materials and products that meet requirements for recycled content and/or energy efficiency when feasible. Consult with Purchasing and Property Services as necessary.
- Allow for sufficient funding for environmental budget concerns.
- Notify their management and/or ESH&A of new, or significantly modified, activities.

#### **ESH&A** shall:

- Review work proposals for potential environmental impacts.
- Keep EMS documents current.
- Coordinate and chair the EMS Steering Committee.
- Keep environmental program plans, policies and procedures current.
- Report to Executive Council at least semi-annually on EMS status/progress.
- Report to the DOE via the FedCenter website on EMS status/progress.
- Monitor Laboratory activities for potential impacts to the EMS.
- Each subject matter expert (SME) is responsible for keeping up to date with their program's regulatory requirements.
- Allow for sufficient funding for environmental budget concerns.

**Environmental Management System Steering Committee** shall:

- Identify and maintain the list of significant environmental aspects for the Laboratory
- Annually assemble a list of environmental objectives and targets based on the legal and other requirements to which the organization subscribes.

**Ames Laboratory Employees** shall:

- Minimize negative impacts of their activities on the environment.
- Comply with the necessary training, policies, plans and procedures of Ames Laboratory.

6.3.4 *Training Requirements*

6.3.4.1 *Institutional Training Modules*

Institutional training modules are assigned to Ames Laboratory personnel based on the readiness review activities they will be participating in while working at the Laboratory. It is the responsibility of the Group Leader/Supervisor to ensure all work has been appropriately identified for each employee. Listed below are institutional trainings that are relevant to the Ames Laboratory Environmental Management System:

<b>GENERAL EMPLOYEE TRAINING (GET) FOR NEW EMPLOYEES AL-001</b>	
<b><i>Intended Audience:</i></b>	<i>Mandatory for all personnel.</i>
<b><i>Module Format:</i></b>	<i>Classroom or online instruction with quiz. Estimated completion time: 1.5 hours.</i>
<b><i>Associated Retrain Period &amp; Format:</i></b>	<i>Retrain is required if an employee has been terminated from the Laboratory for more than a one-year period.</i>

<b>HAZARDOUS WASTE GENERATOR'S TRAINING AL-073</b>	
<b><i>Intended Audience:</i></b>	<i>Mandatory for personnel who work with hazardous chemicals.</i>
<b><i>Module Format:</i></b>	<i>Classroom instruction or online with quiz. Estimated completion time: 1.0 hour.</i>
<b><i>Associated Retrain Period &amp; Format:</i></b>	<i>Annual retrain in classroom or online.</i>

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

<b>RADIOLOGICAL WORKER II (RADIOACTIVE MATERIALS) AL-077</b>	
<b>Intended Audience:</b>	<i>Required for all workers whose job assignment involves entry into Radiological Buffer Areas, Radiation Areas, and Radioactive Materials Area</i>
<b>Module Format:</b>	<i>Self-study. Consists of a study guide, challenge exam and practical factors evaluation (PFE). Estimated completion time: 1.5 hours/exam and 1 hour/PFE.</i>
<b>Associated Retrain Period &amp; Format:</b>	<i>Two—year retrain. Study guide, challenge exam and radiation survey instrument refresher training.</i>

#### 6.3.4

##### *.2 Group/Activity Specific Training*

Group/activity specific training shall be given to each employee by the Group Leader or Department Manager prior to work that includes a discussion of chemical hazards, hazard mitigation, location of SDSs and other safety information, emergency response measures and any other procedural information.

#### 6.3.5 References

Executive Order 13693, Planning for Federal Sustainability in the Next Decade  
DOE Order 436.1, Departmental Sustainability

[Environmental Management System Steering Committee Charter](#) (Charter 10200.001)  
[Ames Laboratory Integrated Safety Management System \(ISMS\) and Worker Safety and Health Program Description](#) (Plan 10200.016)

[Environmental Management System Description](#) (Plan 10200.040)

[Environmental Management System Self-Declaration](#) (Form 10200.161)

[Environmental Aspects Procedure](#) (Procedure 10200.075)

#### 6.4 National Environmental Policy Act

The purpose of this subsection is to briefly describe the Laboratory's application of the National Environmental Policy Act (NEPA) which is detailed in the [Ames Laboratory National Environmental Policy Act Plan](#) (Plan 10200.025). This subsection applies to Division, Institute, Program Directors and Department Managers, Group Leaders and ESH&A.

##### 6.4.1 Background Information

NEPA applies to federal facilities and federally funded activities. Ames Laboratory activities are not allowed to pollute the natural environment, nor to destroy or damage cultural or historical resources. Other negative impacts to the environment or public areas must be eliminated or minimized.

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

#### 6.4.2 Program Information

NEPA for the Department of Energy (DOE) is an enforceable federal regulation that requires federally controlled or funded facilities to evaluate the potential environmental impacts of their proposed activities. This may include sampling and analysis.

Ames Laboratory ESH&A is responsible for review of the NEPA Policy and its applicability to the Laboratory. ESH&A maintains the Laboratory's NEPA Plan which serves as the implementation plan for NEPA at the Laboratory. This document was originally written to comply with DOE Orders. ESH&A is also the contact point for cultural resources and historic preservation.

#### 6.4.3 Roles and Responsibilities

**Ames Laboratory Director** shall:

- Provide sufficient human and financial resources to achieve and maintain compliance with NEPA.

**Division, Institute and Program Directors and Department Managers** shall:

- Assess potential impacts to the environment, cultural and historic sites when planning work.
- Allow for sufficient funding for compliance with NEPA activities.
- Notify ESH&A of new, or significantly modified, activities under supervision.
- Provide supplementary information needed to obtain a NEPA determination, if requested by ESH&A.

**Group Leaders** shall:

- Assess potential environmental impacts when planning work.
- Allow for sufficient funding for environmental budget concerns.
- Notify their management and/or ESH&A of new, or significantly modified, activities.
- Provide supplementary information to management or to ESH&A to obtain a NEPA determination, if needed.

**ESH&A** shall:

- Review work proposals for potential environmental impacts.
- Keep NEPA Policy and procedures current.
- Acquire necessary data and documentation as needed to supplement NEPA Policies and determinations.
- Keep environmental program plans, policies and procedures current.
- Allow for sufficient funding for environmental budget concerns.
- Serve as the point of contact for identifying cultural and historical resources.

#### 6.4.4 References

10 CFR 1021 National Environmental Policy Act Implementation Procedures  
40 CFR 1500 Council on Environmental Quality  
DOE Order 451.1B National Environmental Policy Act Compliance Program  
[Ames Laboratory National Environmental Policy Act Plan](#) (Plan 10200.025)

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<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

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## 6.5 Protection of Groundwater and Surface Water Quality and Compliance with Spill Reporting

The purpose of this subsection is to briefly describe the Laboratory's efforts to protect ground and surface water quality and spill reporting requirements. This subsection applies to all Ames Laboratory employees and any activities with the potential to impact water quality.

### 6.5.1 Background Information

The State of Iowa is the issuing authority for the City of Ames' National Pollutant Discharge Elimination System (NPDES) permit. The City of Ames has pretreatment agreements with ISU. ISU has a state issued storm water permit. Since Ames Lab facilities are on ISU property and use ISU utility systems, Ames Lab wastewater and storm water are components of ISU.

### 6.5.2 Program Information

The rules and regulations for water quality and spills are based on the Clean Water Act and Amendments (CWA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Resource Conservation and Recovery Act (RCRA). The State of Iowa does not have delegated RCRA or CERCLA authority.

The Laboratory relies on the following documents to implement requirements for protection of groundwater and surface water quality and spill prevention, response and reporting.

- Ames Laboratory Waste Management Program Manual (Manual 10200.003)
- Ames Laboratory Radiation Safety Manual (Manual 10202.001)
- Spill Prevention, Control and Countermeasure Plan (Plan 10200.037)

### 6.5.3 Roles and Responsibilities

**Division, Institute and Program Directors and Department Managers** shall:

- Consider potential impacts to water quality when planning work.
- Notify ESH&A of new, or significantly modified, activities.
- Allow for sufficient funding for compliance with clean water and spill regulations.
- Ensure all employees generating hazardous waste have completed Hazardous Waste Generator's Training (AL-073).
- Ensure all employees generating radioactive waste have completed Radiological Worker Training (AL-077).

**Group Leaders** shall:

- Consider potential water quality impacts when planning work.
- Notify ESH&A about work activities that may have potential impacts on the storm and sanitary sewers.
- Notify ESH&A of significantly modified activities.
- Eliminate or minimize the environmental impacts of their work activities.
- Complete Hazardous Waste Generator's Training (AL-073), if working with chemicals, radiological or other hazardous materials.

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

- Complete Radiological Worker Training (AL-077), if working with radioactive materials.
- Follow the procedures in the Ames Laboratory Waste Management Manual, and when necessary, the Ames Laboratory Radiation Safety Manual if working with chemicals, radiological or other hazardous materials.

**ESH&A shall:**

- Review work proposals for potential water quality impacts.
- Allow for sufficient funding for environmental budget concerns.
- Provide opportunity for all employees generating wastes to complete Hazardous Waste Generator's Training (AL-073) and Radiological Worker Training (AL-077).
- Report any spills or releases of threshold quantities to appropriate regulatory authority(ies).
- Maintain documentation of compliance with applicable Local, State, and Federal regulations.

**6.5.4 Training Requirements**

**6.5.4.1 Institutional Training Modules**

Institutional training modules are assigned to Ames Laboratory personnel based on the readiness review activities they will be participating in while working at the Laboratory. It is the responsibility of the Group Leader/Supervisor to ensure all work has been appropriately identified for each employee. Listed below are institutional trainings that are relevant to protection of groundwater and surface water quality:

<b>GENERAL EMPLOYEE TRAINING (GET) FOR NEW EMPLOYEES AL-001</b>	
<b>Intended Audience:</b>	<i>Mandatory for all personnel.</i>
<b>Module Format:</b>	<i>Classroom Instruction. Estimated completion time: 2.0 hours.</i>
<b>Associated Retrain Period &amp; Format:</b>	<i>Retrain is required if an employee has been terminated from the Laboratory for more than a one-year period.</i>

<b>HAZARDOUS WASTE GENERATION'S TRAINING AL-073</b>	
<b>Intended Audience:</b>	<i>Mandatory for personnel who work with hazardous chemicals.</i>
<b>Module Format:</b>	<i>Classroom Instruction or online with quiz. Estimated completion time: 1.0 hour</i>
<b>Associated Retrain Period &amp; Format</b>	<i>Annual retrain in classroom or online.</i>

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

<b>RADIOLOGICAL WORKER II (RADIOACTIVE MATERIALS)</b>		<b>AL-077</b>
<b>Intended Audience:</b>	<i>Required for all workers whose job assignment involves entry into Radiological Buffer Areas, Radiation Areas, and Radioactive Materials Areas</i>	
<b>Module Format:</b>	<i>Self-study. Consists of study guide, challenge exam and practical factors evaluation. Estimated completion time: 1.5 hours/exam and 1 hour/PFE.</i>	
<b>Associate Retrain Period &amp; Format</b>	<i>Two-year retrain. Study guide, challenge exam and radiation survey instrument refresher training.</i>	
<b>SPILL PREVENTION, CONTROLS AND COUNTERMEASURES</b>		<b>AL-218</b>
<b>Intended Audience:</b>	<i>Required for all workers whose job assignment involves working with petroleum based products stored or contained in equipment in amounts greater than or equal to 55 gallons.</i>	
<b>Module Format:</b>	<i>Classroom instruction. Estimated completion time: 45 minutes.</i>	
<b>Associate Retrain Period &amp; Format</b>	<i>Annual classroom retrain.</i>	

#### 6.5.4.2 Group/Activity Specific Training

Group/activity specific training shall be given to each employee by the Group Leader or Department Manager prior to work that includes a discussion of chemical hazards, hazard mitigation, location of SDSs and other safety information, emergency response measures and any other procedural information.

#### 6.5.5 References

40 CFR 112 Oil Pollution Prevention, Spill Prevention, Controls and Countermeasures  
 40 CFR 131 Water Quality Standards  
 40 CFR 300 National Oil and Hazardous Substances Pollution Contingency Plan  
 40 CFR 302 Designation, Reportable Quantities and Notification  
 567 IAC 39 Requirements for Properly Plugging Abandoned Wells  
 567 IAC 60 Wastewater Treatment and Disposal  
 567 IAC 61 Water Quality Standards  
 567 IAC 131 Notification of Hazardous Conditions  
 567 IAC 133 Rules for Determining Cleanup Actions and Responsible Parties  
 City of Ames / Iowa State University Pretreatment Agreements #3593-3 and #4093-3  
 Executive Order 12580, Sections 8 and 11, Superfund Implementation



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U.S. DEPARTMENT OF ENERGY

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Contact Person	<a href="#">Sarah Morris-Benavides</a>	Revision	4.0
Manual 10200.002 Section 6		Effective Date	06/01/2016
Environmental Protection Program		Review Date	06/01/2019

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[Ames Laboratory Radiation Protection Program](#) (Plan 10202.004)  
[Ames Laboratory Waste Management Program Manual](#) (Manual 10200.003)  
[Spill Prevention, Control and Countermeasure Plan](#) (Plan 10200.037)

## 6.6 Protection of Air Quality and Ozone Depleting Substances

The purpose of the subsection is to briefly describe the Laboratory's efforts to protect air quality and the use of ozone depleting substances. This subsection applies to research groups using chemicals or radioactive materials inside fume hoods, gloveboxes or other containments with exhaust systems, Facilities and Engineering Services, and ESH&A.

### 6.6.1 Background Information

The State of Iowa is the issuing authority for air emission permits. The State exempts fume hoods and some minor research laboratory emission sources from permit requirements. Ames Laboratory maintains two permitted emission sources, which operate at levels well below the permitted values. EPA Region VII retains authority over ozone depleting substances. The DOE is very concerned with National Emission Standards for Hazardous Air Pollutants (NESHAP) for radionuclides and with protecting stratospheric ozone.

### 6.6.2 Program Information

The federal Clean Air Act (CAA) was passed in 1963; however, implementation and enforcement has been delegated to the states. The Laboratory has two IDNR permitted air emission points, the spray paint booth and the sandblaster. Materials are logged and a rolling average is used to determine the amount emitted per calendar month. In addition, the Laboratory is required to report to DOE annually regarding the use of radionuclides and to certify that releases remain less than the 40 CFR 61 Appendix E limits.

### 6.6.3 Roles and Responsibilities

**Division, Institute and Program Directors and Department Managers** shall:

- Considered potential air quality impacts when planning work.
- Notify ESH&A of new or significantly modified activities.
- Ensure all employees working with ODS are properly trained and certified.
- Ensure all employees operating state permitted equipment shall abide by the conditions of the permit(s).
- Plan for sufficient funding for environmental budget concerns.
- Follow the procedures in the Ames Laboratory Waste Management Manual, and when necessary, the Ames Laboratory Radiation Safety Manual, if working with chemicals, radiological or other hazardous materials.
- Plan for sufficient funding for air compliance with air quality regulations.

**Group Leaders** shall:

- Consider potential air quality impacts when planning work.
- Notify ESH&A of new or significantly modified activities.
- Eliminate or minimize the environmental impacts of their work activities.
- Plan for sufficient funding for environmental budget concerns.

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

- Follow the procedures in the Ames Laboratory Waste Management Manual, and when necessary, the Ames Laboratory Radiation Safety Manual, if working with chemicals, radiological or other hazardous materials.
- Ensure all employees working with ODS are properly trained and certified.
- Ensure all employees operating state permitted equipment shall abide by the conditions of the permit(s).

**ESH&A shall:**

- Review work proposals for potential environmental impacts.
- Follow the procedures in the Ames Laboratory Waste Management Manual
- Follow the procedures in the Ames Laboratory Radiation Safety Manual when working with radioactive materials.
- Plan for sufficient funding for environmental budget concerns.
- Generate the annual radiological NESHAP report.
- Report any operations outside the scope of the two air permits to IDNR.
- Provide opportunity for all employees generating wastes to complete Hazardous Waste Generator Training (AL-073), and Radiological Worker Training (AL-077), if necessary.
- Maintain documentation of compliance with applicable Local, State, and Federal regulations.

**6.6.4 Training Requirements**

**6.6.4.1 Institutional Training Modules**

Institutional training modules are assigned to Ames Laboratory personnel based on the readiness review activities they will be participating in while working at the Laboratory. It is the responsibility of the Group Leader/Supervisor to ensure all work has been appropriately identified for each employee. Listed below are institutional trainings that are relevant to protection of air quality:

<b>GENERAL EMPLOYEE TRAINING (GET) FOR NEW EMPLOYEES AL-001</b>	
<b>Intended Audience:</b>	<i>Mandatory for all personnel.</i>
<b>Module Format:</b>	<i>Classroom Instruction. Estimated completion time: 1.5 hours.</i>
<b>Associated Retrain Period &amp; Format:</b>	<i>Retrain is required if an employee has been terminated from the Laboratory for more than a one-year period.</i>

<b>HAZARDOUS WASTE GENERATOR'S TRAINING AL-073</b>	
<b>Intended Audience:</b>	<i>Mandatory for personnel who work with hazardous chemicals.</i>
<b>Module Format:</b>	<i>Classroom Instruction or online with quiz. Estimated completion time: 1.0 hour.</i>
<b>Associated Retrain Period &amp; Format:</b>	<i>Annual retrain in classroom or online.</i>

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

<b>RADIOLOGICAL WORKER II (RADIOACTIVE MATERIALS)</b>		<b>AL-077</b>
<b>Intended Audience:</b>	<i>Required for all workers whose job assignment involves entry into Radiological Buffer Areas, Radiation Areas, and Radioactive Materials Areas.</i>	
<b>Module Format:</b>	<i>Self-study. Consists of study guide, challenge exam and practical factors evaluation. Estimated completion time: 1.5 hours/exam and 1 hour/PFE.</i>	
<b>Associated Retrain Period &amp; Format:</b>	<i>Two-year retrain. Study guide, challenge exam and radiation survey instrument refresher training.</i>	

#### 6.6.4.2 Group/Activity Specific Training

Group/activity specific training shall be given to each employee by the Group Leader or Department Manager prior to work that includes a discussion of chemical hazards, hazard mitigation, location of SDSs and other safety information, emergency response measures and any other procedural information.

#### 6.6.5 References

40 CFR 61 NESHAP for Radionuclides Other Than Radon  
 40 CFR 63 NESHAP for Source Categories  
 40 CFR 82 Protection of Stratospheric Ozone  
 567 IAC 22 Air Quality: Controlling Pollution  
 567 IAC 131 Notification of Hazardous Conditions  
 Iowa Department of Natural Resources Permit Number 96-A-1282, Paint Spray Booth  
 Iowa Department of Natural Resources Permit Number 96-A-1283, Sand Blaster  
 Executive Order 13693, Planning for Federal Sustainability in the Next Decade  
 DOE Order 231.1B, Environment, Safety and Health Reporting  
 DOE Order 436.1, Departmental Sustainability  
[Ames Laboratory Radiation Protection Program](#) (Plan 10202.004)  
[Ames Laboratory Waste Management Program Manual](#) (Manual 10200.003)

### 6.7 Waste Management

The purpose of this subsection is to briefly describe management of regulated wastes generated by the Laboratory. This subsection applies to research groups and work sections that generate hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) and its amendments, those that generate used oil, those that generate PCB or asbestos waste, and research groups that generate radioactive waste.

#### 6.7.1 Background Information

Waste Management may include any or all of the following general activities, regardless of waste type:

- Waste collection, storage and disposal
- Pollution prevention, waste minimization
- Affirmative procurement and recycling
- Compliance with U.S. EPA and State of Iowa waste regulations
- Superfund Amendments and Reauthorization Act (SARA), Title III chemical inventory reporting
- Building renovation activities

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

Specific hazardous waste regulations began appearing in the 1960's. These regulations have increased in number and specificity many times. Various regulations are enforceable at the federal, state and local levels. The State of Iowa does not have delegated RCRA authority, but it does have some hazardous waste rules. The Federal Facilities Compliance Act (FFCA) amended part of RCRA and resulted in consent orders and agreements between EPA and federal facilities.

#### 6.7.2 *Program Information*

The major applicable law is the Resource Conservation and Recovery Act (RCRA). Federal RCRA regulations are in 40 CFR. The Laboratory documents the implementation for these requirements through following:

- Manual 10200.003, Ames Laboratory Waste Management Program Manual
- Manual 10202.001, Ames Laboratory Radiation Safety Manual
- Plan 10200.033, Radioactive Waste Management Basis
- Plan 10200.023, Waste Minimization/Pollution Prevention Plan
- Procedure 10200.054, Hazard Identification for Excess Property and Materials
- Procedure 10200.071, Radioactive Waste Packaging & Shipping Procedure

#### 6.7.3 *Roles and Responsibilities*

**Division, Institute and Program Directors and Department Managers** shall:

- Consider waste streams when planning work.
- Consider potentially radioactive wastes when planning work.
- Notify ESH&A of new, or significantly modified, activities, including renovations.
- Allow for sufficient funding for compliance with hazardous waste regulations..
- Ensure all employees generating wastes have completed Hazardous Waste Generator Training (AL-073).
- Follow the Ames Laboratory procedure for Hazard Identification for Excess Property and Materials.

**Group Leaders** shall:

- Consider waste streams when planning work.
- Consider potentially radioactive wastes when planning work.
- Notify ESH&A of their new, or significantly modified, waste streams.
- Eliminate or minimize the wastes generated by their work activities.
- Complete Hazardous Waste Generator Training (AL-073), if working with chemicals, radiological or other hazardous materials.
- Complete Radiological Worker II – Radioactive Materials Training (AL-077), if working with radioactive materials.
- Follow the procedures in the Ames Laboratory Waste Management Manual, and when necessary, the Ames Laboratory Radiation Safety Manual if working with chemicals, radiological or other hazardous materials.
- Report spills to ESH&A.
- Ensure all employees generating wastes have completed Hazardous Waste Generator Training (AL-073).
- Follow the Ames Laboratory procedure for Hazard Identification for Excess Property and Materials.



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U.S. DEPARTMENT OF ENERGY

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

**ESH&A shall:**

- Review work proposals for new and/or different waste streams.
- Review work proposals for radioactive waste implications.
- Plan sufficient funding for waste management budget.
- Report waste generator status to the DOE in the Annual Site Environmental Report.
- Report change in waste generator status to the EPA.
- Report spills or releases of reportable quantities to appropriate regulatory authority(ies).
- Provide opportunity for all employees generating wastes to complete Hazardous Waste Generator Training (AL-073), and Radiological Worker II – Radioactive Materials Training (AL-077), if necessary.
- Keep waste management plans, policies and procedures current.
- Collect wastes from satellite accumulation areas.
- Determine appropriate disposal routes for waste streams.
- Coordinate waste disposal through qualified contractors.
- Maintain documentation of compliance with applicable Local, State, and Federal regulations.

**6.7.4 Training Requirements**

**6.7.4.1 Institutional Training Modules**

Institutional training modules are assigned to Ames Laboratory personnel based on the readiness review activities they will be participating in while working at the Laboratory. It is the responsibility of the Group Leader/Supervisor to ensure all work has been appropriately identified for each employee. Listed below are institutional trainings that are relevant to waste management:

<b>GENERAL EMPLOYEE TRAINING (GET) FOR NEW EMPLOYEES AL-001</b>	
<b>Intended Audience:</b>	<i>Mandatory for all personnel.</i>
<b>Module Format:</b>	<i>Classroom Instruction. Estimated completion time: 1.5 hours.</i>
<b>Associated Retrain Period &amp; Format:</b>	<i>Retrain is required if an employee has been terminated from the Laboratory for more than a one-year period.</i>

<b>HAZARDOUS WASTE GENERATOR'S TRAINING AL-073</b>	
<b>Intended Audience:</b>	<i>Mandatory for personnel who work with hazardous chemicals.</i>
<b>Module Format:</b>	<i>Classroom Instruction or online with quiz. Estimated completion time: 1.0 hour.</i>
<b>Associated Retrain Period &amp; Format:</b>	<i>Annual retrain in classroom or online.</i>

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

<b>RADIOLOGICAL WORKER II (RADIOACTIVE MATERIALS)</b>		<b>AL-077</b>
<b>Intended Audience:</b>	<i>Required for all workers whose job assignment involves entry into Radiological Buffer Areas, Radiation Areas, and Radioactive Materials Areas.</i>	
<b>Module Format:</b>	<i>Self-study. Consists of study guide, challenge exam and practical factors evaluation. Estimated completion time: 1.5 hours/exam and 1 hour/PFE.</i>	
<b>Associated Retrain Period &amp; Format:</b>	<i>Two-year retrain. Study guide, challenge exam and radiation survey instrument refresher training.</i>	

#### 6.7.4.2 Group/Activity Specific Training

Group/activity specific training shall be given to each employee by the Group Leader or Department Manager prior to work that includes a discussion of chemical hazards, hazard mitigation, location of SDSs and other safety information, emergency response measures and any other procedural information.

#### 6.7.5 References

40 CFR 260-263 Hazardous Waste Management System: General  
 40 CFR 279 Standards for the Management of Used Oil  
 40 CFR 61 Subpart M National Emission Standards for Asbestos  
 40 CFR 763 Asbestos  
 40 CFR 761 Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions  
 40 CFR Resource Conservation and Recovery Act (RCRA)  
 10 CFR 835 Occupational Radiation Protection  
 Executive Order 13693, Planning for Federal Sustainability in the Next Decade  
 DOE Order 231.1B, Environment, Safety and Health Reporting  
[Ames Laboratory Waste Management Program Manual](#) (Manual 10200.003)  
[Ames Laboratory Radiation Protection Program](#) (Plan 10202.004)  
 Radioactive Waste Packaging & Shipping Procedure (Procedure 10200.071)  
[Radioactive Waste Management Basis](#) (Plan 10200.033)  
[Waste Minimization/Pollution Prevention Plan](#) (Plan 10200.023)  
[Hazard Identification for Excess Property and Materials](#) (Procedure 10200.054)

#### 6.8 Additional Environmental Monitoring, Reporting, Sampling and Surveillance

The purpose of this subsection is to briefly describe additional monitoring, reporting, sampling and surveillance that may be required in addition to the topical areas already covered. This subsection applies to contracted site workers, Facilities and Engineering Services, ESH&A, groups with research activities conducted outdoors, and groups generating large volume waste streams.

##### 6.8.1 Background Information

Activities not already discussed in this section may warrant the Laboratory to monitor, sample, or survey activities related to environmental compliance such as: emergency planning, incidents/accidents, spills and or releases

<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

### 6.8.2 Program Information

The Laboratory stores lead-acid batteries in sufficient quantities to meet the threshold planning quantities outlined by the Emergency Planning and Community Reporting Act (EPCRA) in 40 CFR 355, Appendix A. The required Tier II report is filed through the IDNR annually with copies distributed to county and local emergency response agencies. Chemical purchase requests are reviewed by ESH&A to determine any CERCLA and EPCRA reportable quantities that may be requested for purchases.

### 6.8.3 Roles and Responsibilities

**Division, Institute and Program Directors and Department Managers** shall:

- Consider potential environmental impacts and potential monitoring requirements when planning work.
- Plan for sufficient funding for compliance with environmental monitoring and surveillance requirements.
- Ensure employees follow the procedures in the appropriate Ames Laboratory guidance documents when working with chemicals or other hazardous materials.
- Notify ESH&A of new or significantly modified activities.

**Group Leaders** shall:

- Consider potential environmental impacts and potential monitoring requirements when planning work.
- Plan for sufficient funding for compliance with environmental monitoring and surveillance requirements.
- Follow the procedures in the appropriate Ames Laboratory guidance documents when working with chemicals or other hazardous materials.
- Ensure all employees operating state permitted equipment abide by the conditions of the permit(s).
- Notify ESH&A of new or significantly modified activities.
- Ensure that permitted equipment is operated within its permit conditions.
- Ensure employees follow the procedures in the appropriate Ames Laboratory guidance documents when working with chemicals or other hazardous materials.

**ESH&A** shall:

- Review planned work activities for monitoring implications.
- Supply information necessary to plan environmental monitoring or surveillance of work and other known Laboratory work.
- Participate, assist or advise in collecting samples for analysis and monitor new potential emission sources.
- Follow applicable Local, State, and Federal protocol for sampling and monitoring activities.
- Prepare notifications of new sources to the appropriate regulatory authority(ies).
- Report to appropriate agency for emergency planning purposes, if necessary.
- Report any spills or releases of threshold quantities to appropriate regulatory authority(ies).
- Maintain documentation of compliance with applicable Local, State, and Federal regulations.



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<b>Contact Person</b>	<a href="#">Sarah Morris-Benavides</a>	<b>Revision</b>	4.0
<b>Manual 10200.002 Section 6</b>		<b>Effective Date</b>	06/01/2016
<b>Environmental Protection Program</b>		<b>Review Date</b>	06/01/2019

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#### 6.8.4 *References*

40 CFR 355 Emergency Planning and Notification  
567 IAC 22 Controlling Pollution  
567 IAC 23 Emission Standards for Contaminants  
567 IAC 131 Notification of Hazardous Conditions  
Executive Order 12580, Sections 8 and 11 Superfund Implementation  
Executive Order 13693, Planning for Federal Sustainability in the Next Decade  
DOE Order 231.1B, Environment, Safety and Health Reporting  
[Waste Management Contingency Plan](#) (Plan 10200.017)  
[Radiological Protection Program](#) (Plan 10202.004)  
EPCRA Tier II Reporting (Procedure 10200.081)